

Surveillance Trends for *Vibrio* Infections in FoodNet Sites, 1996-2004

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Background: *Vibrio* infections in the U.S. are most frequently caused by *V. parahaemolyticus*, *V. vulnificus*, and less commonly by other *Vibrio* species. Common sources include seafood consumption or wound exposure to marine water. We report trends for non-toxicogenic *Vibrios* from active surveillance in the U.S.

Methods: FoodNet surveillance encompasses over 600 clinical laboratories in 10 U.S. states. Laboratory-confirmed case data, with corresponding demographics and clinical outcomes, were obtained for *V. parahaemolyticus*, *V. vulnificus*, and other *Vibrio* species. Negative binomial regression was used to assess trends in incidence. The mean incidence for years 1996 to 1998 served as a baseline for comparison.

Results: A total of 642 *Vibrio* cases were reported from 1996 to 2004; 4 (<1%) cases of toxigenic cholera and 78 (12%) cases with unknown species or serogroup were excluded from the analysis. The remaining 560 cases by species were *V. parahaemolyticus* (58%), *V. vulnificus* (14%), and other non-toxicogenic *Vibrios* (28%). Most cases occurred in July (22%) and August (24%) and case-patients were predominantly male (65%) with a median age of 45 years. The majority of *V. parahaemolyticus* case-patients had isolates from stool (89%); 16% were hospitalized with a median stay of 3 days and had a case fatality rate (CFR) of <1%. Most *V. vulnificus* case-patients had isolates from blood (75%) and were hospitalized (84%) with a median stay of 7 days and a CFR of 33%. Among the remaining non-toxicogenic *Vibrio* case-patients, 58% had isolates from stool and 29% were hospitalized with a median duration of 4 days and a CFR of 3%. Combining data from all the sites, the 2004 incidence of *V. parahaemolyticus* increased 116% [95% CI (-42%, 132%)], *V. vulnificus* increased 231% [95% CI (-9%, 1112%)] and other non-toxicogenic *Vibrio* serotypes increased 192% [95% CI=40%–509%] compared to the 1996-1998 baseline.

Conclusion: FoodNet trends suggest increases in *V. parahaemolyticus*, *V. vulnificus*, and other non-toxicogenic *Vibrio* infections. Further studies are warranted to better understand the risk factors associated with these infections to guide future interventions.